

Message in a Bottle

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Archaeologists study human activity from what people have left behind. Before plastic or aluminum, we stored various products, such as food, medicine, and sundries in glass containers. Fragments of these bottles are often all that is left. Archaeologists must decode clues remaining on parts of a bottle such as lettering and symbols molded in the glass to look for information about the time period, manufacturing location, and use of the glass vessel. By looking at artifacts from a site, we can learn about the individuals and groups that the items belonged to. For example, ink wells, used for writing messages, are commonly found at schoolhouses, homes, and businesses.



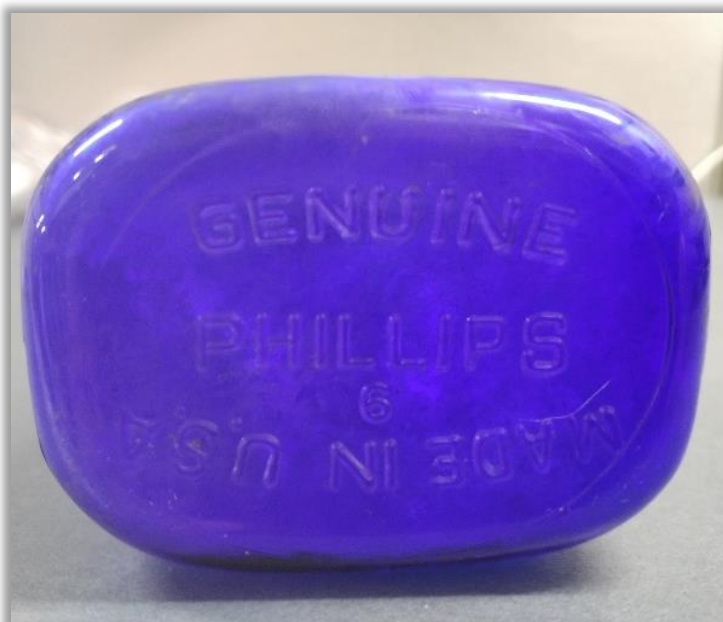
Early glassware was handblown. Chunks of molten glass from sand were heated in a fire and then air was blown by the sculptor through a metal tube to shape the glass. The rod used to hold the hot glass left a mark, or pontil scar, in the base of the bottle. Often, there are air bubbles in the glass. Later, glassware was pressed into its shape from a mold in a factory and seams along the sides and base of the glass from the mold are visible. The top of the bottle could be designed in different ways. Corks, stoppers, screw caps, and metal wire fasteners were all types of closures to keep the liquid contents in the bottle, while stoppers were common for perfume bottles and other cosmetics. Threaded screw caps were common in the 1920s, limiting the use of corks primarily to alcohol containers. The image to the lower left is of a canning jar with dimples. On the back side of the glass, which is not shown, is text reading "wire slide." Dimples are small round nodules on opposite sides of the neck of the bottle to secure the wire closure in place, and the wire slide refers to the wire closure sliding over or off the top of the lid. Archaeologists look for these changes in technology as a puzzle piece to help date the glassware.



Glass bottles appear in all kinds of shapes, sizes, and colors including clear, aqua, blue, green, black, brown, white, and amethyst. The specific color of the bottle depends on the types and mixture of additives during the glass firing process, such as sand, soda, or lime. The ST JAKOBS OEL medicine bottle, pictured below, is typically light green because of the mixture process that has less iron content than other green glassware. Adding cobalt oxide to the mixture forms a blue color, while adding decolorizing oxides creates a clear color, and exposure to sunlight turns a glass an amethyst hue.



Typically, the front and/or back of a bottle contains a logo and manufacturing information. But how do we identify a bottle that had a paper label that is no longer there? The bottom of the bottle may have interesting markings (letters, numbers, and logos) which can indicate the manufacturing company, the date of manufacture, and the mold number. This Phillips Milk of Magnesia bottle, pictured below, still has the metal screw cap but also has the lettering “Genuine Phillips 6 Made in U.S.A”. It is not always this easy and can require a bit of research to determine information about glassware. For example, the letter “T” represents 20 different companies depending on the specific design and there is not a standard method of marking bottles. To aid in research, there are many online sources. Catalogs and antique books are also useful tools. Along the sides of the bottle or at the bottom, there are sometimes phrases that indicate the volume of liquid and certain instructions. After prohibition ended in 1934, the phrase “Federal Law Forbids Sale or Reuse of this Bottle” was added to any alcohol bottles until the 1960s when it was no longer required due to the abundance of bottle manufacturing.



Indiana has left a mark on the history of the bottling industry. There are bottles made by iconic companies, like Coca-Cola, that are easy to identify. Other big-name companies include Owens-Illinois Glass Company, Metro Glass Bottling Company, Hazel-Atlas, and Duraglas—all commonly found on archaeological sites in Indiana. The image on the right found in Noble County is of the base of a bottle with the Owens-Illinois Glass Company logo. Many Indiana cities had bottling plants including Anchor Glass Company (Lawrenceburg), Anderson Bottling Company (Anderson), American-Wheaton Glass Corporation (Terre Haute), Armstrong Cork Company (Dunkirk), Ball Mason Jars (Muncie), Bell Bottling Company (Fairmount), Blue Ribbon (Marion), Fairmount Glass Company (Indianapolis), Indiana Glass Company (Dunkirk), New Albany Glass Works (New Albany), Root Glass Company (Terre Haute), and Star Glass Works (New Albany).



The bottling industry has been vital for Indiana's local and state economy. The changes visible on bottles and fragments reflect the changes in the world around us. The 20th century saw significant breakthroughs with the introduction of innovative technology and social changes. Bottles are also aesthetically pleasing, and bottle collecting is a very popular hobby. The context of how and where the bottle was found is also important. Make sure you have landowner permission and that you are following the laws and do not collect artifacts on state or federal property. Know your history too. If artifacts date on or before December 31, 1870, then there are state statutes regarding their protection. We learn about our past from the materials left behind and where they were found.



For more information about historic glass bottle identification, we recommend reviewing the following online resources:

Glass Bottle Marks at glassbottlemarks.com/bottlemarks.

Historic Glass Bottles Identification & Information Website (Society for Historic Archaeology) at sha.org/bottle.